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Amendments to the Claims:

1. (Previously Presented) A method for treating a metal, comprising subjecting the metal to electrolysis in the presence of an electrolyte using alternating pulses of at least one of voltage and current, said alternating pulses being of opposite polarity, wherein if the electrolyte is an aqueous electrolyte it is an aqueous solution of a salt selected from the group consisting of alkali metal salts, alkali earth metal salts, aluminum salts and ammonium salts.
2. (Original) A method according to claim 1, wherein the metal is austenitic stainless steel.
3. (Previously Presented) A method according to claim 1, wherein the electrolyte contains nitrogen.
4. (Original) A method according to claim 3, wherein the electrolyte is an aqueous solution of a nitrogen-containing salt.
5. (Original) A method according to claim 4, wherein the electrolyte is an aqueous nitrite solution.
6. (Original) A method according to claim 5, wherein the electrolyte is aqueous sodium nitrite.
7. (Previously Presented) A method according to claim 1, wherein the alternating pulses have waveform selected from the group consisting of sinusoidal waveforms and square waveforms.
8. (Previously Presented) A method according to claim 1, which further comprises, after said step of subjecting the metal to electrolysis, heat treating the metal.

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9. (Previously Presented) A method according to claim 1, wherein the metal is in the form of a metal article or a part of a metal article for use in an environment in which it will be exposed to tribological activity.

10. (Previously Presented) A method according to claim 1, wherein the metal is for use as a moving part in an apparatus.

11. (Previously Presented) A method according to claim 1, said step of subjecting the metal to electrolysis being carried out *in situ* on apparatus selected from the group consisting of engineering equipment and storage tanks.

12. (Original) A metal or metal article which has been subjected to a method as defined in claim 1.

13. (Currently Amended) ~~Use of a A method as defined in claim 1, to improve for~~ improving the resistance of austenitic stainless steel to mechanical degradation, said method comprising subjecting said austenitic stainless steel to electrolysis in the presence of an electrolyte using alternating pulses of at least one of voltage and current, said alternating pulses being of opposite polarity, wherein if the electrolyte is an aqueous electrolyte it is an aqueous solution of a salt selected from the group consisting of alkali metal salts, alkali earth metal salts, aluminum salts and ammonium salts

14. (Currently Amended) ~~Use of a A method as defined in claim 1, to remove or transform for removing martensite from or transforming martensite to austenitic stainless steel,~~ said method comprising subjecting said stainless steel to electrolysis in the presence of an electrolyte using alternating pulses of at least one of voltage and current, said alternating pulses being of opposite polarity, wherein if the electrolyte is an aqueous electrolyte it is an aqueous solution of a salt selected from the group consisting of alkali metal salts, alkali earth metal salts, aluminum salts and ammonium salts.

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15. (New) A method according to claim 1, wherein the electrolyte is an aqueous electrolyte.

16. (New) A method according to claim 1, wherein the metal is steel.

17. (New) A method according to claim 1, wherein the metal is titanium.

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